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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,701	12/17/2001	Kyeong Jin Kim	8733.479.00	6382

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EXAMINER

RUDE, TIMOTHY L

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 09/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/015,701

Applicant(s)

KIM, KYEONG JIN

Examiner

Timothy L Rude

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-28 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

This application contains claims directed to the following patentably distinct species of the claimed invention:

Species I, claims 1-5 and 7-23, drawn to a method of forming a liquid crystal display (LCD) device comprising a TFT transistor (generic, includes top-gate TFTs).

Species II, claims 6 and 24-28, drawn to a method of forming a liquid crystal display (LCD) device comprising steps of forming a gate electrode on the first substrate; forming a gate insulating film is formed on the first substrate; forming a semiconductor layer on the gate insulating film; and forming source and drain electrodes on the semiconductor film (comprises a bottom gate transistor).

Currently claims 1-5 and 7-23 are generic to Species II.

Furthermore, Species I contains the following Sub-Species:

Sub-Species A, Claim 7, drawn to a method of forming a liquid crystal display (LCD) device comprising a TFT transistor formed to have an L-shape.

Sub-Species B, Claim 8, drawn to a method of forming a liquid crystal display (LCD) device comprising a TFT transistor formed to have an U-shape.

Sub-Species E, Claim 15, drawn to a method of forming a liquid crystal display (LCD) device comprising an alignment layer selected from the group consisting of polyimide, polyamide, polyvinyl alcohol, polyamic acid, and silicon oxide.

Sub-Species F, Claim 16, drawn to a method of forming a liquid crystal display (LCD) device comprising an alignment layer selected from the group consisting of polyvinylcinnamate, polysiloxanecinnamate, and cellulosecinnamate.

Sub-Species J, Claim 20, drawn to a method of forming a liquid crystal display (LCD) device comprising a first height of 1-2 μm and a second height of 5-8 μm .

Sub-Species K, Claim 21, drawn to a method of forming a liquid crystal display (LCD) device comprising a first height of 1-2 μm and a second height of about 4 μm .

Sub-Species L, Claim 22, drawn to a method of forming a liquid crystal display (LCD) device comprising a first height of 1-1.5 μm and a second height of about 3 μm .

Sub-Species M, Claim 23, drawn to a method of forming a liquid crystal display (LCD) device comprising a first height of about 1 μm and a second height of about 2 μm .

Species II contains the following Sub-Species:

Sub-Species P, Claim 25, drawn to a method of forming a liquid crystal display (LCD) device comprising a first height of 1-2 μm and a second height of 5-8 μm .

Sub-Species Q, Claim 26, drawn to a method of forming a liquid crystal display (LCD) device comprising a first height of 1-2 μm and a second height of about 4 μm .

Sub-Species R, Claim 27, drawn to a method of forming a liquid crystal display (LCD) device comprising a first height of 1-1.5 μm and a second height of about 3 μm .

Sub-Species S, Claim 28, drawn to a method of forming a liquid crystal display (LCD) device comprising a first height of about 1 μm and a second height of about 2 μm .

Applicant is required under 35 U.S.C. 121 to elect a single disclosed Species, I or II. If Species I is elected, Applicant may elect one Sub-Species from A and B, one from E and F, and one from J, K, L, and M. If Species II is elected, Applicant may elect one Sub-Species from P, Q, R, and S for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim

is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy L Rude whose telephone number is (703) 305-0418. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H Kim can be reached on (703) 305-3492. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.



TLR

Timothy L Rude
Examiner
Art Unit 2871



TOANTON
PRIMARY EXAMINER